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The *In-Home* VCR Mechanical Repair & Cleaning Guide

by Curt Reeder

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The *In-Home* VCR Mechanical Repair & Cleaning Guide

You can save money and learn valuable skills repairing your VCR in your own home!

The In-Home VCR Mechanical Repair & Cleaning Guide is geared toward *you*, the average home VCR user who owns one or more VCRs and would like assistance in maintaining your equipment.

Like anything that is used in your home (vacuum cleaners, lawn mowers, etc.), a VCR requires minimal service to keep functioning well. A technical or electrical engineering degree is NOT required for you to begin maintaining VCRs on a regular basis. With only a few small hand tools such as tweezers, cleaning fluid, a power screwdriver and cotton swabs, *The In-Home VCR Mechanical Repair & Cleaning Guide* shows you the many tricks and secrets of VCR maintenance.

This book is also geared toward the entrepreneur in all of us who may consider starting a new VCR service business of his/her own. The vast information contained herein gives you a firm foundation on which to create a personal niche in this unique service business.

The In-Home VCR Mechanical Repair & Cleaning Guide presents repairing and cleaning VCRs as a step-by-step process. Each chapter of this book lends more information to the next chapter, at which point you will be able to find the cause behind the fault affecting your VCR and be able to correct it. This book belongs in the library of anyone who ever wanted to know how to repair their own VCR or understand the workings inside their VCR.

Author *Curt Reeder* started his *In-Home VCR Repair and Cleaning* service in 1990, servicing VCRs in the homes of customers. This book is written from the many notes and descriptive remedies he has compiled which illustrate in easy-to-understand terms how the owner of one or more VCRs can service their own units or start a personal, small business. Mr. Reeder has repaired literally hundreds of VCRs by using the methods outlined within this text. The most common and frequent VCR malfunctions that Mr. Reeder's customers have experienced with their VCRs have brought this book into being.

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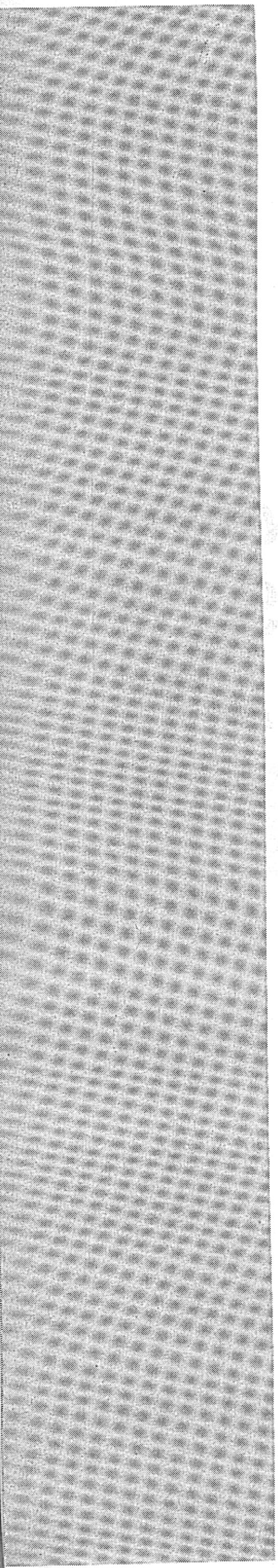

Introduction

SIX RULES OF THE GAME

Before you actually begin to disassemble your working VCR in an attempt to correct its original symptom, there are several rules which should be taken into consideration in order to make your first disassembly, repair, cleaning and reassembly process more enjoyable and glitch free.

Rule #1

Never attempt to work on your VCR or any other VCR with its power supply cord plugged into a wall outlet. There is a warning label on the rear panel of every VCR manufactured which states, "TO AVOID AN ELECTRICAL SHOCK, DO NOT REMOVE THE COVER." This warning should be taken very seriously. By removing the power supply cord from any power supply outlet, you should remove any possibility of a hazardous shock.

Rule #2

WARNINGS have been provided throughout this text at key intervals which are intended to warn you against a potential hazard or to prevent you from causing another, more costly fault in the VCR you are working on. The WARNINGS should be taken very seriously and should be read several times before you continue with the actual disassembly or cleaning procedure.

Rule #3

It is highly recommended that you purchase an unwanted "junker" VCR to practice on before attempting a cleaning or repair procedure on a working VCR that may be exhibiting a fault. A junker VCR is a great learning tool and will allow you to make an unlimited number of mistakes without the pressure of a friend, family member or customer anxiously awaiting word about the condition of their VCR.

Rule #4

If a repair or cleaning procedure seems beyond your ability to correct, then don't do it. It may be best left to a friendly VCR service center. Be certain to make a note of what the VCR technician had to do in order to correct the original symptom. Use this text and try to decide where the problem occurred. By making a note of the corrective procedure, you may be able to correct the problem yourself if you happen to see the same symptom again in the future. Also, by not attempting to correct the problem yourself, you avoid an otherwise inflated repair bill required to correct any misguided "tweaking".

Rule #5

Always make a point to use manufacturer's original replacement parts when performing a repair procedure. By using the manufacturer's parts, you will avoid second-guessing your original repair work and reduce the chance of a negative customer response. As you will see, although VCR parts tend to look similar in size and shape, it is not necessarily true that they are interchangeable.

Rule #6

As you will see in the following chapters, the proper disassembly steps outlined in this text should be applied to every VCR you happen to work on. The proper order is:

1. Remove the VCR's lid.
2. Remove the VCR's lower pan.
3. Remove the VCR's front panel.
4. Remove the VCR's head shield.
5. Remove the VCR's carriage assembly.

Keep in mind, as you progress through this method, that each disassembly step is considered a judgment call. That is to say, removing the VCR's lid may be all that is required in order for you to remove something from within the VCR's mechanical format in order to remedy an original faulty symptom. Soon you will be able to judge for yourself as to how far the VCR will need to be disassembled in order to access the faulty or dirty part that is creating the original symptom.

The secret to VCR repair and cleaning is quite simple:

1. Go slow at each disassembly stage.
2. Understand the function of each part in the typical VHS VCR mechanical format.
3. Obtain the ability to recognize the symptoms of a particular part when it is dirty or fails.
4. Use the proper disassembly steps outlined in this text to clean, adjust or replace the part which is exhibiting the symptom.

Also, as a reminder, there are two terms that need to be clarified which are referred to within this text. The two terms are:

1. VHS VCR format.
2. Symptom similarity.

Let's clarify the term "VHS VCR format" first. In the early 1980s, there were two distinct formats of VCR available to the purchasing public. They were VHS and Beta. At this time, the Beta format has all but become extinct while the VHS format has become the norm. Since

this text is based on the VHS VCR, the term "format" refers to the VHS VCR format and the general inner mechanical workings of the VCR, rather than the difference between Beta and VHS. For example, the mechanical format of Fisher brand VCRs is quite different from the mechanical format of RCA brand VCRs, though they are both VHS standard.

This is an important aspect to take into consideration when considering the original symptom in an ailing VCR. An experienced VCR technician will often ask, "What brand is your VCR?" Since each VHS VCR tends to have its share of likely sources for a particular fault to occur, this question is asked first in the troubleshooting process to more quickly locate the origin of the symptom affecting the VCR in question.

The second term to consider is "symptom similarity". Symptom similarity is when two or more VCR parts exhibit the same symptom. For example, the symptom for failed video heads looks very similar to the symptom for a guidepost that may be obstructed in its groove. However, the difference in price to correct a guidepost is quite minimal compared to replacing the video heads.

This, too, is an important aspect to keep in mind when troubleshooting a VCR. Although it may seem as though there are over a thousand different variables to take into consideration, once you understand the many different parts of a VCR and how they are intended to perform, often the origin of a symptom can be correctly identified after considering only three or four different parts within the typical VCR.

Keep the above six rules in mind, and let's begin by first outlining the common parts of the trade which you will most likely encounter as you begin to repair VCRs for friends, family, and a handsome profit.